

Amendments to the Claims

Listing of Claims:

Claims 8-10 (rejected)

8. (Cancelled) A method for forming a cermet thin film resistor such as the one described in claim 6 including the steps of:

depositing said thin film resistor on a substrate utilizing r.f. magnetron sputtering with argon gas; and,

controlling the resistivity and TCR of said cermet thin film resistor by varying the sputtering power and pressure.

9. (Cancelled) A method for forming a cermet thin film resistor such as the one described in claim 7, which includes the steps of: deposition of the film on a substrate utilizing r.f. and d.c. magnetron sputtering with argon gas; and controlling the resistivity and TCR of the cermet thin film by varying the sputtering power and pressure.

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10. (Currently amended) The ~~method according to claim 8~~ embedded resistor of claim 11 wherein the resistor film is approximately 1000 angstroms thick and the substrate comprises an oxidized silicon substrate; ~~the method including the further steps of controlling sputtering power and pressure~~ is controlled to obtain Rs and TCR values in accordance with the following table:

Rs (ohms/Square)	TCR (ppm/C)	Pressure (mTorr)	Power (kW)
250	≤ -200	10	2.0
400	≤ -220	14	1.0
800	≤ -260	14	0.4
1500	≤ -400	18	0.4

11. (New) An embedded resistor comprising a thin film cermet material deposited by sputtering on a substrate and having a nearly zero TCR, said thin film cermet material comprising $M_xSi_yO_z$;

where $M = W$ or Ta

and wherein said embedded resistor is deposited on said substrate utilizing r.f. magnetron sputtering with argon gas; and,

by controlling the resistivity and TCR of said embedded resistor by varying the sputtering power and pressure.

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cont'd 12. (New) An embedded resistor comprising a thin film cermet material deposited by sputtering on a substrate and having a nearly zero TCR, said thin film cermet material comprising $M_xSi_yO_z$;

where $M = W$ or Ta

said deposition onto a substrate is performed by co-sputtering of two targets: a first target of W or Ta and a second target of SiO_2 ;

wherein sputtering of said SiO_2 target is r.f. sputtering; and,

deposition of the film on a substrate includes the steps of utilizing r.f. and d.c. magnetron sputtering with argon gas; and controlling the resistivity and TCR of the thin film cermet material by varying the sputtering power and pressure.